

IN THE CLAIMS

Please amend the claims to read as follows:

Listing of Claims

1-9. (Canceled).

10. (Currently Amended) A radio communication apparatus ~~that communicates with a plurality of communicating parties including a first communicating party to which a directivity has formed and a second communicating party to which a directivity has not formed,~~ said radio communication apparatus comprising:

a detector that detects a null point in the a directivity pattern that is formed toward the a first communicating party;

an estimator that provides an estimation result of estimates a direction where ~~the~~ of a second communicating party, ~~is present~~ to which a directivity pattern has not formed, from ~~a direction~~ of the null point detected by said detector; and

a generator that ~~, according to the estimation result,~~ generates a weight coefficient for use in formation of the directivity pattern toward the second communicating party according to said estimation result.

11. (Currently Amended) The radio communication apparatus of claim 10, wherein:

the detector detects whether a null is present in respective directivity patterns of a plurality of first communicating parties that have formed toward said respective first communicating parties;

the estimator compares directivities the directivity patterns corresponding respectively to a said plurality of first communicating parties and estimates that a source of interference against the second communicating party is present in a direction where (I) a null point forms in at least one directivity of the directivity patterns of the first communicating parties and where (ii) a null point does not form in at least one directivity of the directivity patterns of the first communicating parties; and

the generator generates the weight coefficient such that said directivity pattern toward said second communicating party having a null point forms in the estimated direction where said source of interference is estimated to be present.

12. (Currently Amended) The radio communication apparatus of claim 10, wherein:

the detector detects nulls in respective directivity patterns of a plurality of first communicating parties that have formed toward said respective first communicating parties;

the estimator compares ~~directivities~~ the directivity patterns corresponding respectively to a said plurality of first communicating parties and estimates that the second communicating party is present in a direction where a null point forms in all ~~directivities~~ the directivity patterns of the first communicating parties; and

the generator ~~the weight coefficient such that~~ said directivity pattern toward said second communicating party having a beam forms in the estimated direction in which said second communicating party is estimated to be present.

13. (Currently Amended) The radio communication apparatus of claim 10, further comprising a comparator that compares a first reception quality, obtained when the directivity pattern towards the first communicating party is in use, and a second reception quality, obtained when said directivity pattern toward the first communicating party is not in use, wherein the estimator estimates the direction where of the second communicating party ~~is present~~, based on the comparison result.

14. (Currently Amended) The radio communication apparatus of claim 13, wherein:

when the first reception quality is better than the second reception quality, the estimator estimates that a source of interference against the second communicating party is present in a direction where a the null point forms has formed in the directivity pattern toward the first communicating party; and

the generator generates the ~~weight coefficient such that a~~ directivity pattern toward the second communicating party having a null point forms in the estimated direction in which said second communication party is estimated to be present.

15. (Currently Amended) The radio communication apparatus of claim 13, wherein:

when the first reception quality is poorer than the second reception quality, the estimator estimates that the second communicating party is present in a direction where a the null point forms has formed in the directivity pattern toward the first communicating party; and

the generator generates the ~~weight coefficient such that~~ directivity pattern toward the second communicating party having a beam forms in the estimated direction in which said second communication party is estimated to be present.

16. (Canceled).

17. (Currently Amended) A ~~weight coefficient~~ directivity pattern generation method ~~in a radio communication apparatus that communicates with a plurality of communicating parties including a first communicating party to which a directivity has formed and a second communicating party to which a directivity has not formed,~~ the method comprising:

(a) detecting a null point in the a directivity pattern that is formed toward the first communicating party;

(b) estimating a direction where ~~the~~ of a second communicating party, is present to which a directivity pattern has not formed, from ~~a direction of~~ the null point detected in step (a); and

(c) ~~according to the estimation result,~~ generating a weight coefficient for use in ~~formation of the~~ directivity pattern toward the second communicating party according to an estimation result of step (b).